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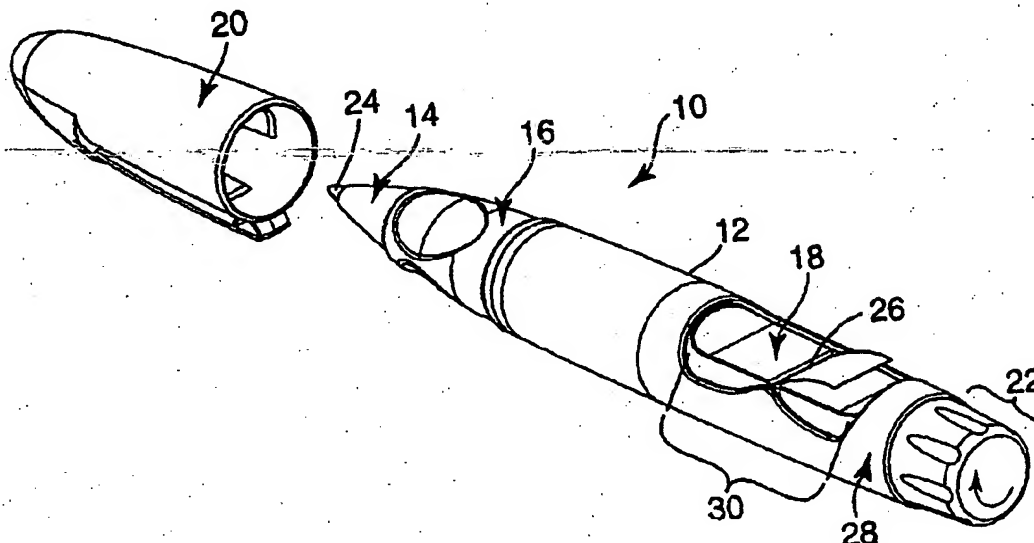
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(54) Title: **WRITING INSTRUMENT WITH SHEET DISPENSER**



(57) Abstract: The present invention is directed to a combined writing instrument/sheet material dispenser (10). The present invention is comprised of a body (12) that has a tip portion (14), a sheet material dispenser portion and a grip portion (16) disposed between the tip portion and the sheet material dispenser portion (18). Formed within the sheet material dispensing portion of the body is a compartment that is sized to receive and hold a stack of sheet material. The stack of sheet material is formed from a plurality of individual sheets that are adhered together with a releasable adhesive layer. A slot (26) is formed in the sheet material dispensing portion of the body to communicate with the compartment and thereby allow a top-most sheet in the stack to be exposed for use.

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## WRITING INSTRUMENT WITH SHEET DISPENSER

### BACKGROUND OF THE INVENTION

The present invention generally relates to devices for marking written or pictorial materials that may be deemed important to a person viewing such materials. In particular, the present invention relates to a writing instrument that incorporates a sheet material dispenser within the body of the writing instrument, for individually dispensing sheet material formed in a stack.

In the course of reviewing and studying printed materials, it is common for individuals to write marginal notes, underline text and even highlight portions deemed important. College or university students, for example, commonly use highlighter pens and/or colored pens or pencils to aid in reading and studying course materials. Locating particular such marked-up passages, however, often may require a search of several similarly marked-up pages. One product that facilitates locating a particular page or section of a page is a tape flag, such as those manufactured by 3M Company, St. Paul, MN under the trademark **Post-it®** flags. A typical manner of packaging sheet material formed in a stack and adhered together with a releasable adhesive layer along alternating opposing edges, e.g., in a Z-fold manner is disclosed in U.S. Patent No. 4,770,320, which is incorporated by reference herein in its entirety. Various other dispensable sheet material stacks are known in the art, including those disclosed in U.S. Patent Nos. 4,416,392, 4,781,306, and 5,417,345, which are incorporated herein by reference. For ease and convenience of access to both a writing instrument and tape flags or the like, it would be beneficial to house both in a single, easy to carry unit that is also not unattractive nor displeasing to the professional eye.

### BRIEF SUMMARY OF THE INVENTION

The present invention is directed to a combined writing instrument/sheet material dispenser. The present invention is comprised of a body that has a tip portion, a sheet material dispenser portion and a grip portion disposed between the tip portion and the sheet material dispenser portion. Formed within the sheet material dispensing portion of the body is a compartment that is sized to receive and hold a stack of sheet material. The stack of sheet material is formed from a plurality of individual sheets that are adhered together with a

releasable adhesive layer. A slot is formed in the sheet material dispensing portion of the body to communicate with the compartment and thereby allow a top-most sheet in the stack to be exposed for use.

### BRIEF DESCRIPTION OF THE DRAWINGS

5 Fig. 1 is a perspective view of a first embodiment of a combination writing instrument/sheet material dispenser of the present invention.

Fig. 2 is an exploded view of the combination writing instrument/sheet material dispenser of Fig. 1.

10 Fig. 2a is a longitudinal sectional view of a cover for the writing instrument/sheet material dispenser of the present invention shown in Fig. 2.

Fig. 3 is an enlarged perspective view of the sheet material dispensing portion of the writing instrument of Fig. 2.

Fig. 4 is an enlarged exploded view of the sheet material dispensing portion of Fig. 3.

15 Fig. 5 is a longitudinal sectional view of one embodiment of the sheet material dispensing portion.

Fig. 5a is a longitudinal sectional view of one embodiment of the sheet material dispensing portion with a stack of sheet material in the compartment of the sheet material dispensing portion.

20 Fig. 6 is a perspective view of the combination writing instrument/sheet material dispenser of Fig. 1 with the cover partially rotated.

Fig. 7 is a perspective view of the combination writing instrument/sheet material dispenser of Fig. 1 with the cover fully rotated to the closed position.

25 Fig. 8 is a side view of a second embodiment of the combination writing instrument/sheet material dispenser of the present invention.

Fig. 9 is an exploded view of a third embodiment of the combination writing instrument/sheet material dispenser of the present invention.

30 Fig. 10 is an exploded view of a fourth embodiment of the combination writing instrument/sheet material dispenser of the present invention. While the above-identified drawing figures set forth preferred embodiments of the invention, other embodiments are also contemplated, as noted in the discussion. In all cases, this disclosure presents the present

invention by way of representation and not limitation. It should be understood that numerous other modifications and embodiments can be devised by those skilled in the art which fall within the scope and spirit of the principles of this invention. It should be specifically noted that the figures have not been drawn to scale as it has been necessary to enlarge certain portions for clarity. Throughout the embodiments, like reference numerals are used for like elements.

### DETAILED DESCRIPTION

A first embodiment of a combination writing instrument/sheet material dispenser 10 of the present invention is shown in Fig. 1. Generally, writing instrument 10 is defined by a body 12 that includes a tip portion 14, a grip portion 16 adjacent to tip portion 14 and a sheet material dispensing portion 18 adjacent to grip portion 16. In one preferred embodiment, body 12 is generally cylindrical with grip portion 16 and tip portion 14 being radially tapered. A cap 20 is provided to cover tip portion 14 and grip portion 16 when the writing instrument 10 is not being used to write (i.e., is being stored). Cap 20 can also be disposed on an end portion 22 of the sheet material dispensing portion 18 when writing instrument 10 is being used to write.

Extending from tip portion 14 in the first embodiment is a writing tip 24 of an ink cartridge (not shown) that is housed within body 12. Grip portion 16, positioned adjacent to the tip portion 14, and in one embodiment is preferably made of a natural rubber and is contoured to provide gripping surfaces that are designed to match the location of fingers when writing instrument 10 is held by a user. Grip portion 16 is disposed between tip portion 14 and sheet material dispensing portion 18. The sheet material dispensing portion 18 houses a stack of sheet material, one sheet of which is shown extending from body 12 through a slot 26. A cover 28 is provided around the sheet material dispensing portion 18 of body 12. In one preferred embodiment, writing instrument 10 of the present invention has a maximum outer diameter, defined by sheet material dispensing portion 18 and cover 28, of about 0.6 inches (15 millimeters) or less. The cover 28 includes an opening or window 30 that exposes the slot 26 when the cover 28 is in an open position. As will be discussed later in greater detail, the cover 28 is also rotatable to a closed position to cover the slot 26 when the sheet material dispensing portion 18 is not in use.

Fig. 2 is an exploded view of the combination writing instrument/sheet material dispenser 10 of Fig. 1. As shown in Fig. 2, sheet material dispensing portion 18, grip portion 16 and tip portion 14 are secured to a mounting portion 32. Mounting portion 32 has a female receiving end 34 configured for receiving a male end 36 of sheet material dispensing portion 18. The female receiving end 34 is provided with a plurality of spaced circumferential grooves 38 which are sized to receive a complimentary set of spaced circumferential ridges 40 on the male end 36 of sheet material dispensing portion 18. With male end 36 of sheet material dispensing portion 18 fully inserted into the female receiving end 34, ridges 40 seat in grooves 38 to hold sheet material dispensing portion 18 securely in place relative to mounting portion 32. Alternatively ridges 40 and grooves 38 could be reversed, or both could be ridges which engage and interlock. Mounting portion 32 and sheet material dispensing portion 18 may be formed from any suitable material, for example, by injection molding any suitable polymer. By way of a non-limiting example, one particularly beneficial polymer is ABS, a copolymer of acrylonitrile, butadiene and styrene, due to its qualities of strength, clarity (i.e., transparency) and an aesthetically pleasing high gloss sheen.

As further shown in Fig. 2, mounting portion 32 also includes a radially tapered male end 42 on which is mounted a decorative spacing ring 44, the grip portion 16 and the tip portion 14. The male end 42 includes an external threaded portion 46, which is sized to match internal threads 48 in tip portion 14. With ring 44 and grip portion 16 positioned over the male end 42, tip portion 14 is threaded onto threaded portion 46 thereby securing tip portion 14, grip portion 16 and ring 44 to mounting portion 32. Tip portion 14 and spacing ring 44 may be made from any suitable material, such as a metal or a polymer as previously described. As shown in Fig. 2, in one embodiment writing instrument 10 contains an ink cartridge 45 with a writing tip 24 that extends from tip portion 14 when writing instrument 10 is fully assembled such that ink cartridge 45 extends internally through grip portion 16, and may extend through sheet material dispensing portion 18. In an alternative embodiment (not shown), writing tip 24 may be retractable from tip portion 14.

As shown in Figs. 2 and 2a, cover 28, which may also be formed of a polymer (or any other suitable material), includes an inner circumferential groove 48A formed on the inner circumferential surface 50 of cover 28 near the open end 52 of cover

28. Upon assembly of cover 28 to the sheet material dispensing portion 18, groove 48A mates with a circumferential ridge 54 on the sheet material dispensing portion 18 to hold cover 28 securely to sheet material dispensing portion 18, yet allowing cover 28 to rotate with respect to sheet material dispensing portion 18. Cover 28 is also provided with a pair of small protrusions 56 adjacent to the groove 48A, which are designed to mate with a pair of small depressions 58 on opposite sides of sheet material dispensing portion 18.

Protrusions 56 and depressions 58 provide a positive location for cover 28 when it is in an open position (i.e., when window 30 is aligned to allow user access to slot 26, as shown in Fig. 1). Protrusions 56 also follow within a pair of arcuate guides 60 provided on diametrically opposite sides of outer surface 61 of the sheet material dispensing portion 18 when cover 28 is rotated from the open position to a closed position, as will be discussed subsequently in greater detail. It will be understood by a person skilled in the art that the placement of protrusions 56 and depressions 58 can be reversed; or located at any other position between cover 28 and sheet material dispensing portion 18.

To aid in aligning cover 28 with slot 26, the inner circumferential surface 50 of cover 28 is provided with a raised portion 62 adjacent to the closed end 64 of cover 28, as shown in Fig. 2a. With cover 28 in the open position, raised portion 62 bears against a first shoulder 66 formed in the outer surface of sheet material dispensing portion 18 at end 68 to ensure window 30 is properly positioned relative to slot 26. A second shoulder 70 is also provided at end 68 opposite first shoulder 66 such that when cover 28 is rotated in a clockwise direction, raised portion 62 will engage shoulder 70. With raised portion 62 engaging shoulder 70, a solid outer surface 72 of cover 28 is disposed such that dispensing region 74 of sheet material dispenser 18 (including slot 26) is covered (i.e., the closed position of cover 28), thereby preventing user access to slot 26.

Fig. 3 is an enlarged perspective view of the sheet material dispensing portion 18 of writing instrument 10. As shown in Fig. 3, the sheet material dispensing region 74 is formed in the outer surface of sheet material dispensing portion 18 to define a pair of flat surfaces 80a and 80b on either side of slot 26. Each flat surface 80a and 80b is dimensioned to accommodate the dimensions of the top-most sheet 82 extending from the slot 26. While sheet 82 is shown extending over surface 80b, it is to be understood that as a result of a Z-folding arrangement of the stack of sheet material (discussed in greater



detail in U.S. Patent 4,770,320) within sheet material dispensing portion 18, typically the next top-most sheet in the stack will face in an opposite direction over surface 80a.

As further shown in Fig. 3, slot 26 communicates with a compartment 81 that is formed within sheet material dispensing portion 18. Both slot 26 and compartment 81 are open and exposed through a side wall 83 of sheet material dispensing portion 18 for loading a stack of sheet material (not shown) by removal of the cover 28 (shown in Fig. 2). Surfaces 80a and 80b are preferably transparent to allow a user to monitor the volume of sheets remaining in compartment 81.

The construction of one embodiment of sheet material dispensing portion 18 is illustrated in Fig. 4, which is an enlarged exploded view of sheet material dispensing portion 18. As shown in Fig. 4, sheet material dispensing portion 18 is comprised of two sections: a base section 84 and a cover section 86. Base section 84 is defined by an elongated arcuate wall 88 (defining an outer surface 88A) that has first and second parallel edges 90 and 92. Edge 92 is provided with a pair of steps 94 to create a gap 95 in the wall 88 along edge 92. A first end 96 of base section 84 is open, while the opposite end 98 of base section 84 is closed by a transverse wall 100. Extending from the inner surface 102 of base section 84 is a pair of spaced ribs 104, which can be formed in the molding process. Ribs 104 define surfaces 106 that serve as a platform (or base) for holding a stack of sheet material. As shown in Fig. 4, by way of a non-limiting example, ribs 104 have a length greater than the gap 95 formed in wall 88. Ribs 104 preferably are long enough so as to provide a sufficient contact surface to support a stack of sheet material. In an alternative embodiment, an adequate base for a stack of sheet material is formed by replacing ribs 104 with a plurality of ribs oriented 90 degrees to ribs 104. For ease of assembly of sheet material dispensing portion 18, edges 90 and 92 are configured with grooves 108 at end portions of base section 84. The space between the platform and the wall 88 may be used to provide space for ink cartridge 45, discussed previously.

The cover section 86 is also defined by an arcuate wall 110 defining outer surface 110A that is sized and configured to mate with wall 88 of base section 84. Edge 112 is provided with a pair of spaced steps 116 to define a second gap 118 in wall 110 that preferably is equal in length to gap 95 in the wall 88 of base section 84. End portions of cover section 86 are configured with protrusions (such as protrusions 120 shown extending

## INTERNATIONAL SEARCH REPORT

In ☐ International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 978 006 A (JUTEAU) 18 December 1990 (1990-12-18) abstract; figures	1,15
A	EP 0 057 554 A (TIBBLING) 11 August 1982 (1982-08-11) abstract; figures	1,15

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